

ANALYSIS OF DAILY MILK PRODUCTIVITY CHANGE IN DAIRY COWS

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Summary. Research on fluctuations in cow milk productivity traits was carried out in July and August of the years 2001 and 2002, within a period of 30 days each year. Latvian Brown milking cows, 74 and 66 respectively, reared by one person, were included in trial group. Coefficients of variation were calculated for each cow for all the studied productivity traits to elicit dynamics of milk productivity traits. Dynamics of cow daily milk productivity was found higher in the year 2002. In both trial years greatest values of coefficients of variation were obtained for somatic cell count, 16.83% and 37.01% on average per group of cows. Lactose content in milk was most stable milk productivity trait. The observed variability was from 1.43% to 3.37%, however this difference was significant. The average variability in milk yield, fat and protein content in milk was 9.77%, 10.94% and 8.76% respectively in 2002.

Physiological factors, such as cow age at lactations and lactation phase might be the factors, which could significantly affect milk productivity dynamics. Feed means used as supplement in cow diet as well as concentrated feed fed significantly affected dynamics of fat, protein and lactose content in milk. In analysis of the dynamics of the milk yield, fat and protein content in milk in different cow lactation phases we found that these traits could significantly change already in the following day of control. In second trial day, cows of the 1st phase lactation showed significant change in average milk yield, fat and protein content in milk by 6%, 10% and 6% respectively compare to the first trial day.

Keywords: dairy cows, milk productivity traits, variation.